

Marine Corps Aviation Simulator Master Plan (MCASMP)

Brief for FRS Summit



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Objective

- Inform the FRS Summit on the current and future state of the Marine Corps Aviation Simulator Master Plan (MCASMP).

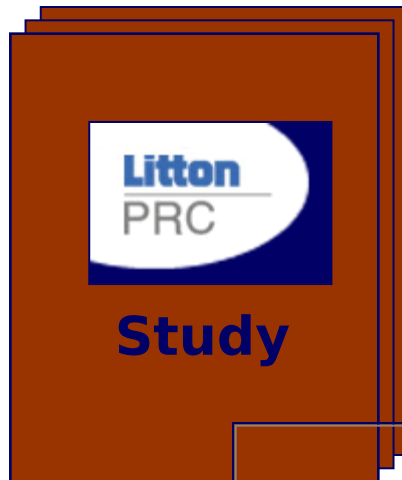


Outline

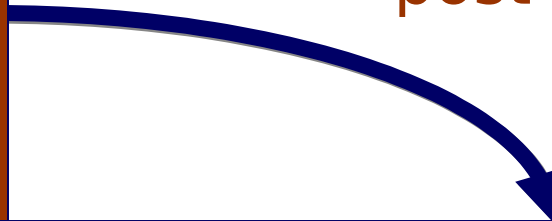
- Background
- Marine Corps Aviation Simulator Master Plan (MCASMP)
- Building a Training System (MV-22)
- Director of Aircrew Training Systems (ATS)
- Marine Aviation Simulation Steering Committee (MASSC)



MCASMP Requirement Front End Analysis (FEA)



“Focused on enhancing
post-FRS training”



1. CONUS: 2 Networked Sims Each T/M/S
2. WESTPAC: 1 Simulator for Each T/M/S
3. Reserves: Not Collocated With Active T/M/S Have Simulator Capability



Marine Corps Aviation Simulator Master Plan (MCASMP)

Key Element of the Marine Aviation Campaign Plan

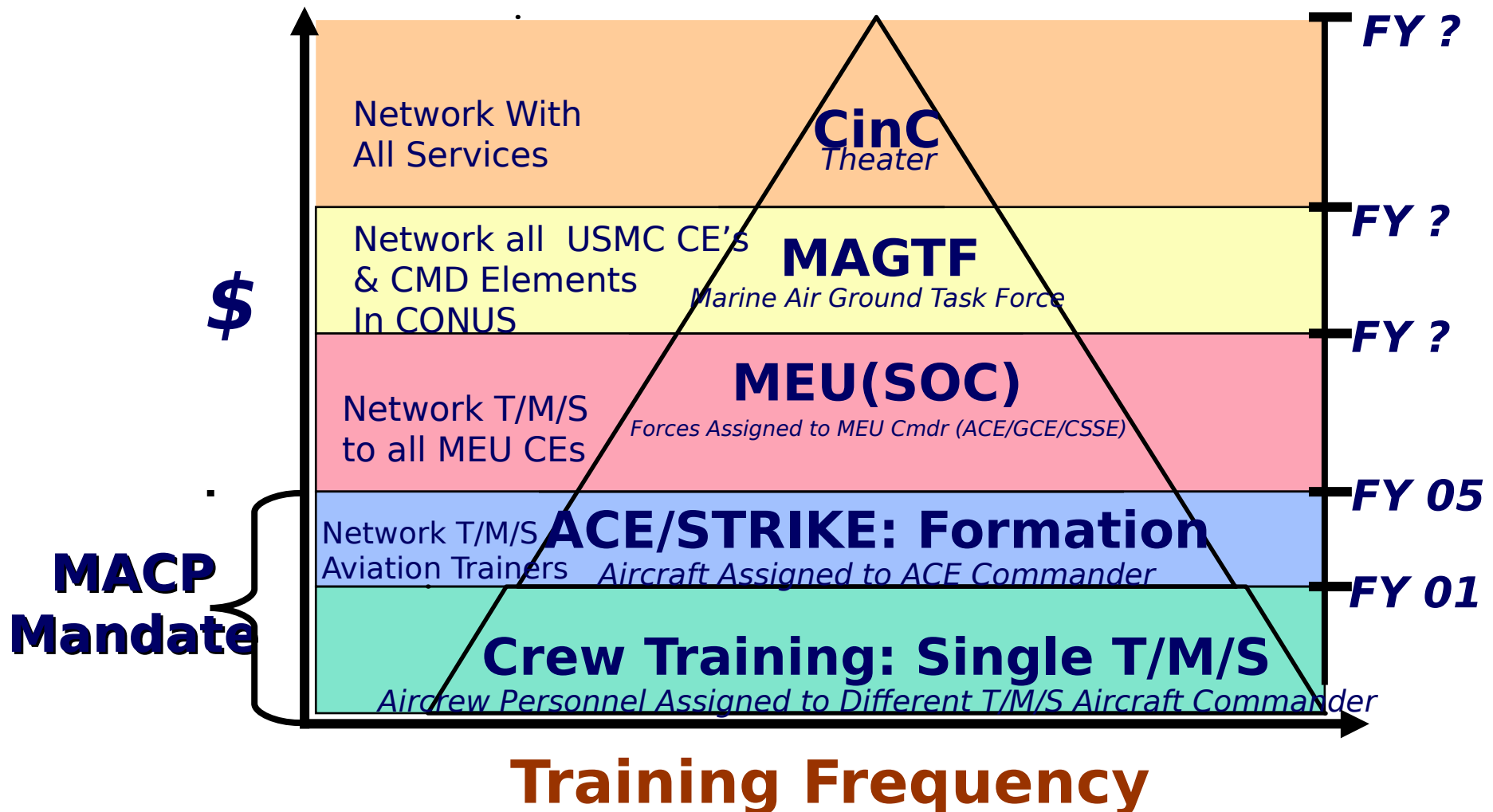
- Adjunct to aircraft sorties
- Maintain or increase combat readiness
- Build pilot experience base
- Ease burden on our aging and expensive aircraft fleet
- Offset range encroachment and weapons training



Provide a section of networked simulators for each T/M/S in CONUS
WESTPAC and Reserve Forces: one simulator for each T/M/S



“Tactically Relevant” Networking



Marine Corps Aviation Simulator Master Plan (MCASMP)



MCASMP



MCASMP Vision and Goals

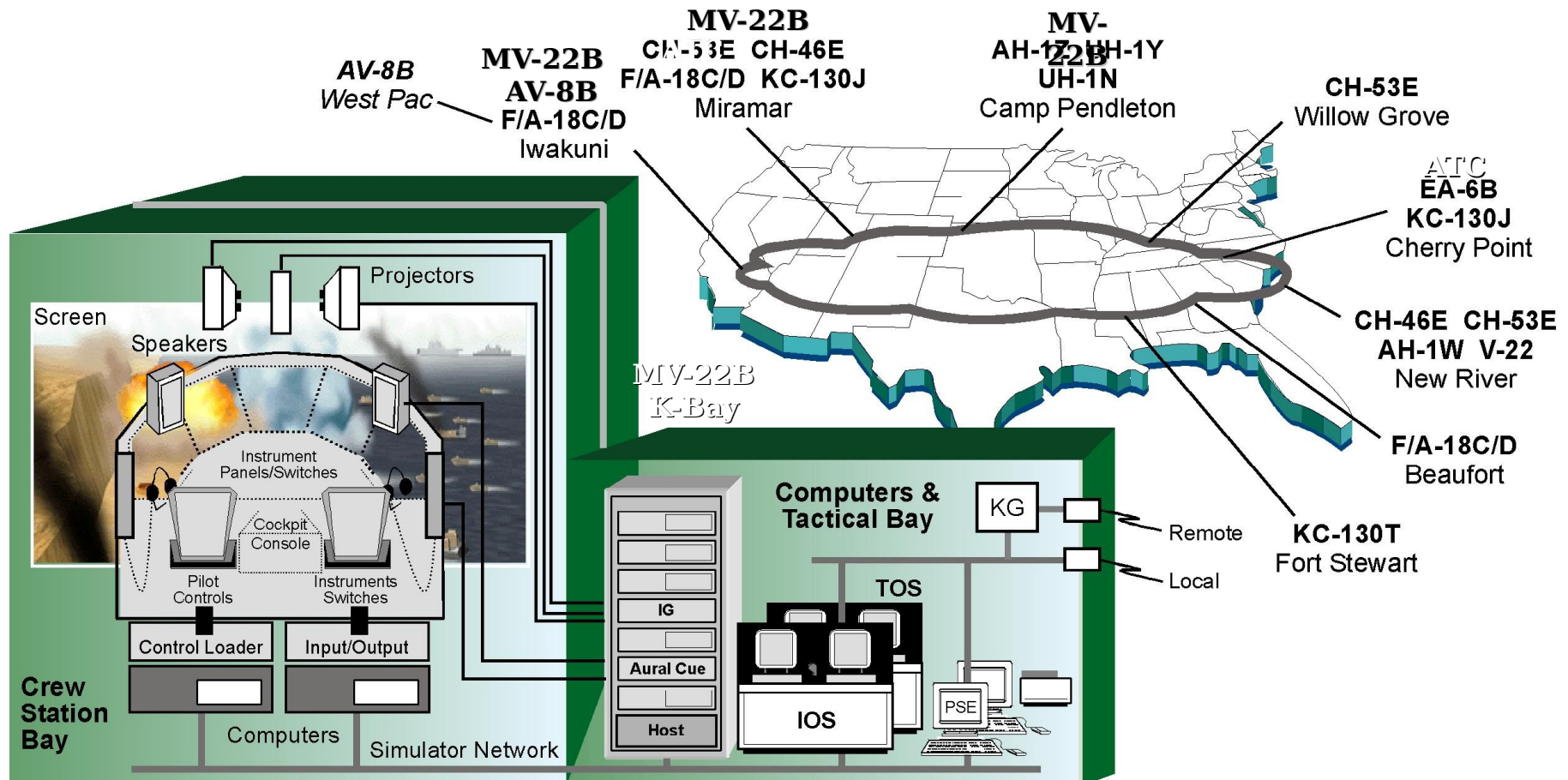
- Vision:
 - “Obtain the worlds best simulation technology to improve overall aviation readiness” (Marine Aviation Campaign Plan, Oct 1999)

- Goals
 - On-time delivery of tactically relevant aviation training
 - Reduce total ownership cost
 - Institutionalize processes that support our mission



MCASMP Vision

A Tactically Relevant, Core Common, Networked Training System





MCASMP Elements

USMC Aviation Simulator Master Plan

WESTPAC

- CH-46E
- CH-53E
- KC-130T
- EA-6B

MV-22 & New Simulators

- Tactical Environment Network
- MC Common Visual Database

Legacy Systems

- Leverage & reuse
- Incorporate Tactical Environment Network
- Incorporate MC Common Visual Database

ATS

- Established organizational structure for aviation simulation assets



MCASMP Evolution

Step 1

- **Accomplished**
- **Incorporate Tactical Environment Network (TEN) & USMC Common D-Base in all new procurements**

MV-22B FFS New River	CH-46E WST Miramar
MV-22B FTD New River	CH-53E WST Miramar
CH-46E WST New River	CH-46E WST Okinawa
CH-53E WST New River	UH-1N WST New River
UH-1N WST Camp Pendleton	

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Step 2

- **FY 03**
- **Incorporation of common subsystems (e.g. visual - image generator, display)**

CH-53E APT Okinawa	F/A-18D APT Iwakuni
KC-130T APT Okinawa	CH-53E APT Okinawa
MV-22B FFS New River	
CH-46E APT New River	

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Step 3

- **FY 04**
- **Incorporate program common support environment**
- **Legacy upgrades**



MCASMP Delivery Orders (DOs)



**MV-22B
FTD**



**MCASMP
Initial Pattern
Units**

DO FY02

- Follow-On Production

- AH-1Z - Contractor: TBD
- AV-8B - Contractor: INDRA
- KC-130J - Contractor: TBD

DOs FY03, FY04, FY05

- Follow-On Production

Contractor: TBD



MCASMP Laydown

FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07
MV-22B FFS New River	MV-22B FFS New River	CH-46E New River	AH-1Z Camp Pendleton	F/A-18D Miramar	AH-1Z Camp Pendleton	AH-1Z New River	AH-1Z Futenma	MV-22B FTD Okinawa
MV-22B FTD New River		CH-53E New River	KC-130J Cherry Point	F/A-18D Beaufort	UH-1Y Camp Pendleton	UH-1Y New River	UH-1Y New River	MV-22B FTD Okinawa
CH-46E Okinawa		F/A-18D Iwakuni	AV-8B Cherry Point	CH-53E Miramar	KC-130J Miramar	MV-22B FFS New River	MV-22B FTD New River	MV-22B FTD Camp Pendleton
CH-53E Okinawa			MV-22B FFS New River	CH-46E Camp Pendleton	F/A-18D Beaufort	MV-22B FTD Miramar	ATC Cherry Point	MV-22B FTD Camp Pendleton
KC-130T Okinawa			MV-22B FTD New River	UH-1Y Camp Pendleton		MV-22B FTD Miramar	CH-53E Willow Grove	
EA-6B Iwakuni						AV-8B Cherry Point	EA-6B Cherry Point	
						KC-130T Stewart ANG	F/A-18D Miramar	
						F/A- Miramar		

Black - Delivered
Blue - Funded
Red - Unfunded

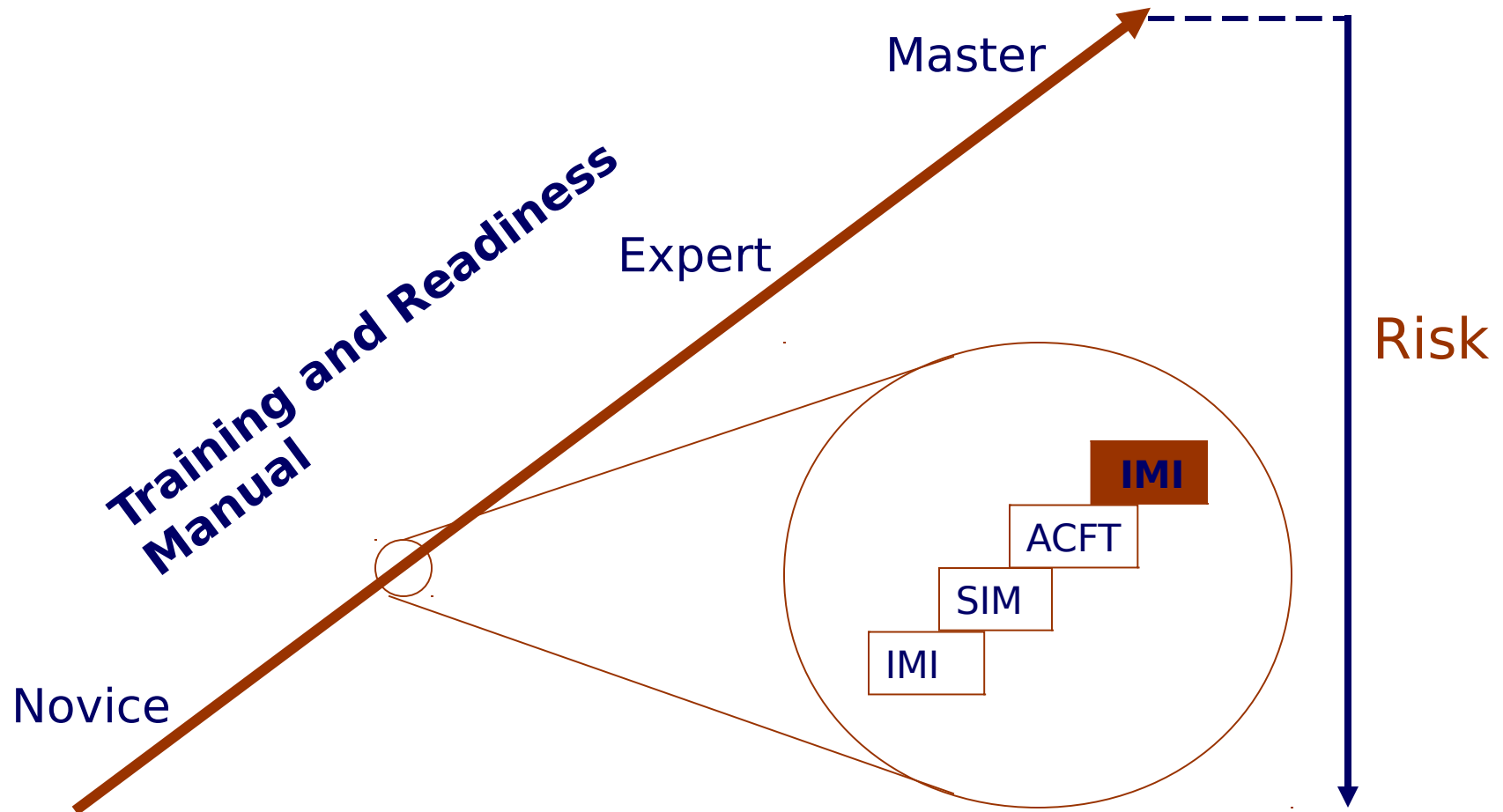
Marine Corps Aviation Simulator Master Plan (MCASMP)



MV-22 Training System Approach



A Revolution in Training (A System of Trainers)



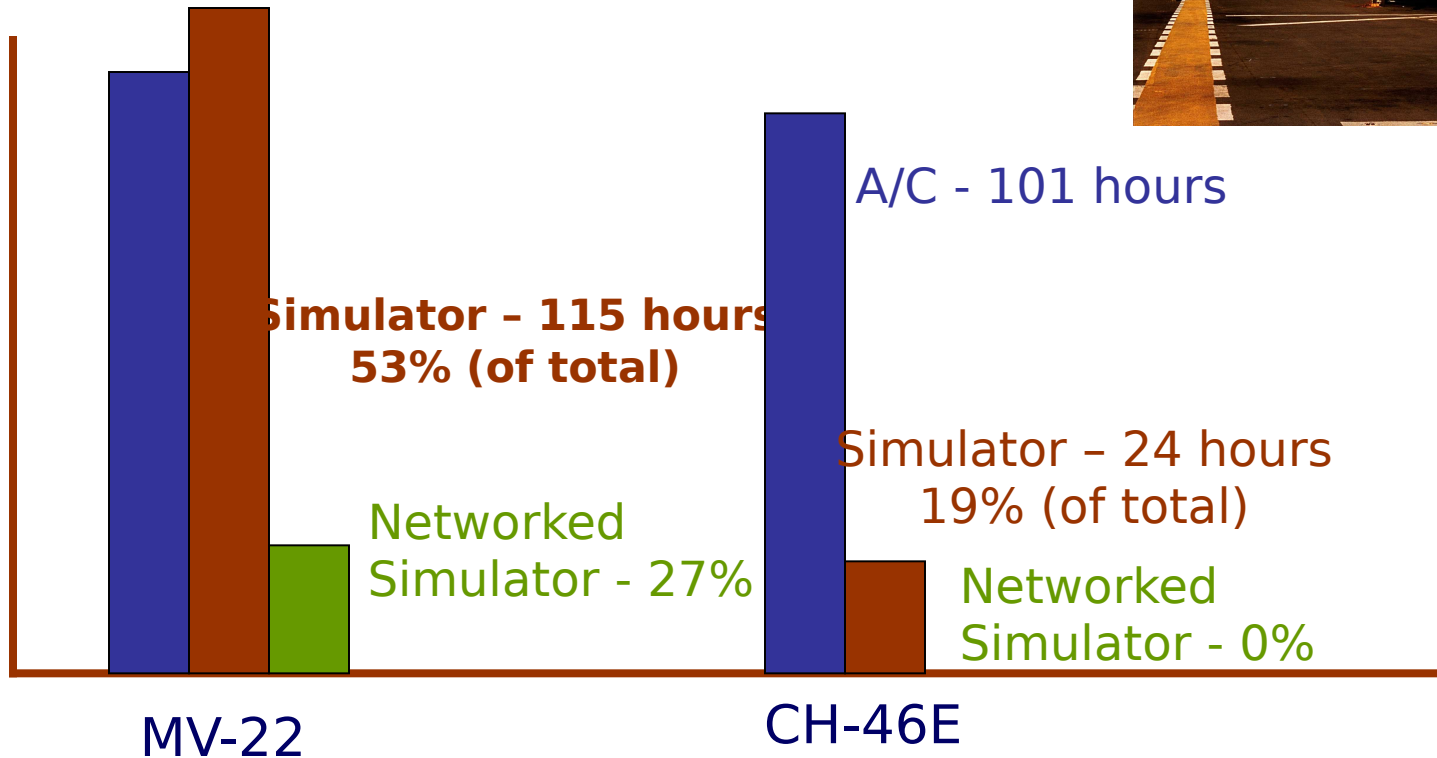


MV-22 Leading The Way (100-300 Level Comparison)



A/C - 103 hours

Platform
Hours





Full Flight Simulator (FFS) Flight Training Device (FTD)



- Follow standards and specifications proven in commercial aviation “best practices”
- COTS solution focused on capabilities rather than “pure technology”
 - Reduced TOC
 - Maintain concurrency with A/C
- Provides tactically relevant training
 - Tactical Environment Network
 - Marine Corps Common Visual Database

USMC is Capitalizing on
50 Years of Experience in Aviation Training Services

Marine Corps Aviation Simulator Master Plan (MCASMP)

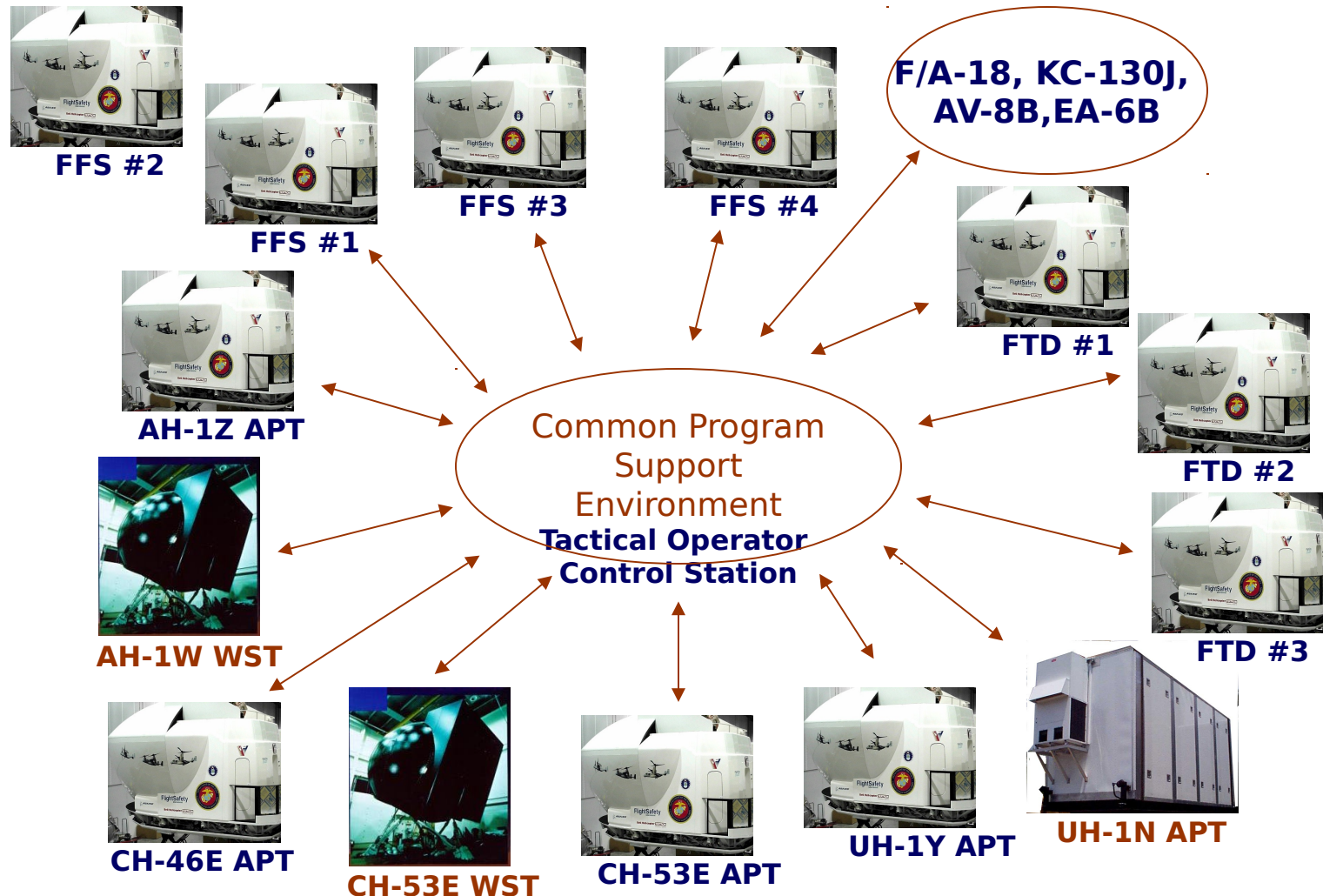


Director of Aircrew Training
Systems (ATS)



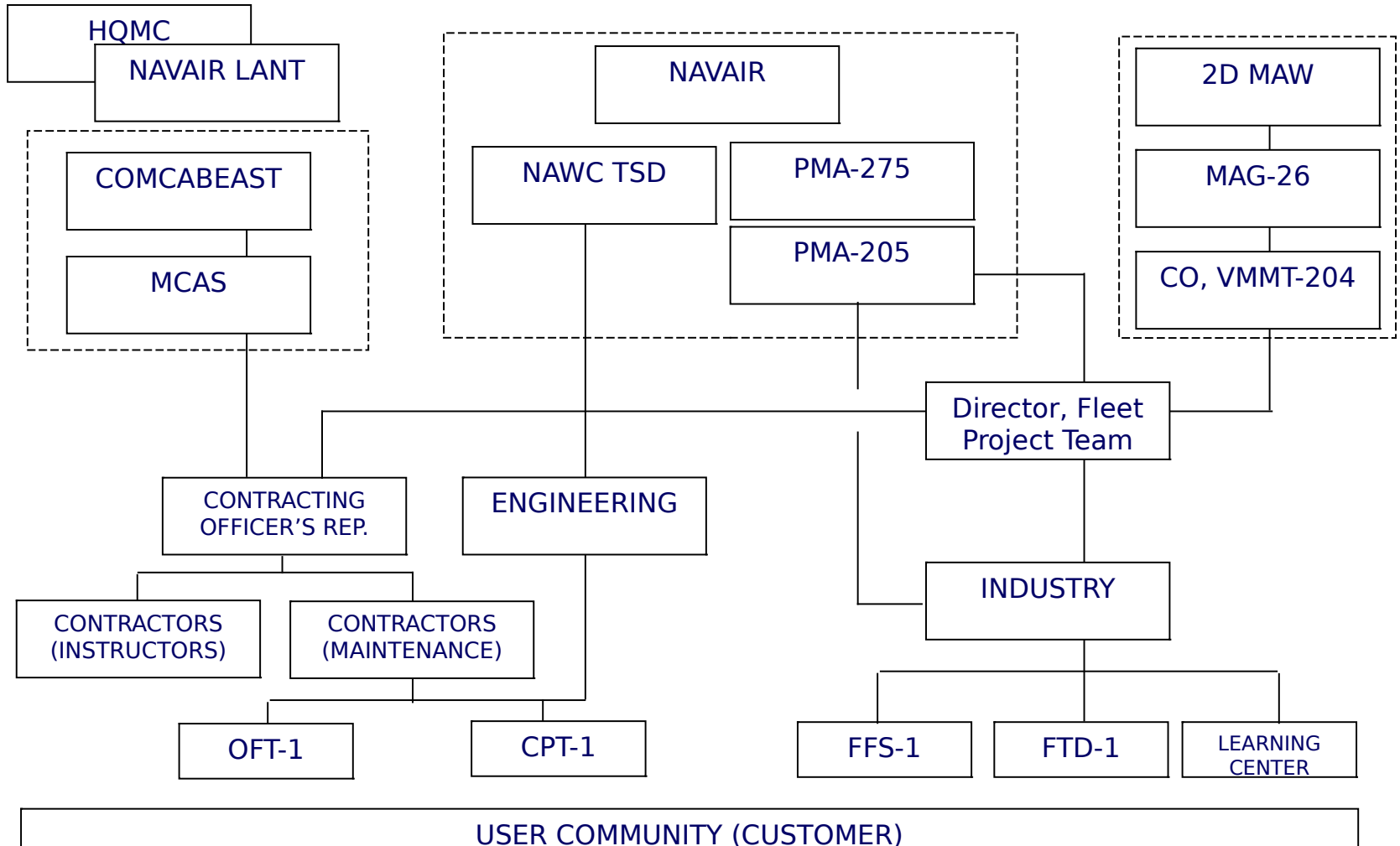
Where We Are Going...

"A Composite Aircrew Training Squadron"



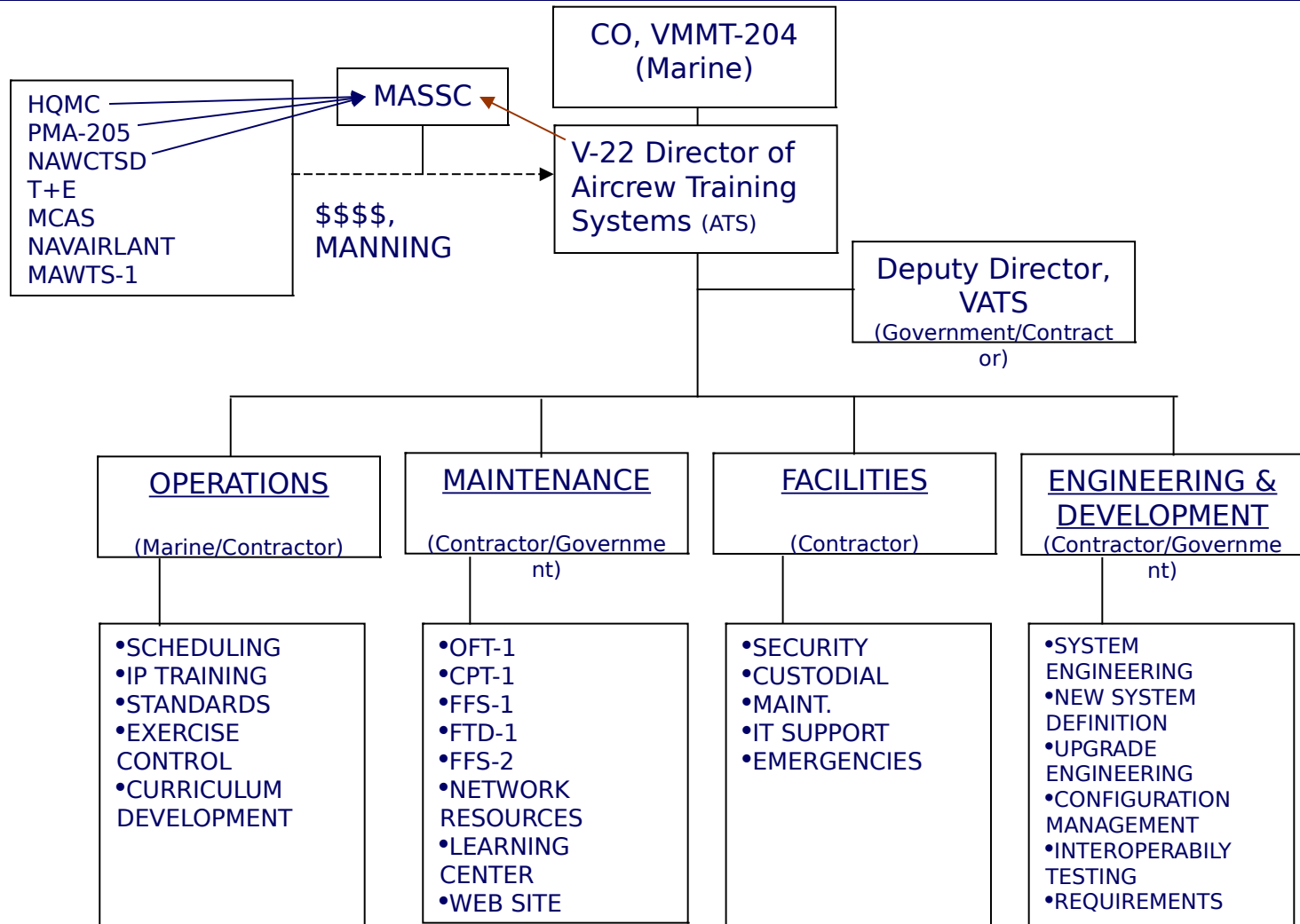


Previous Simulator Environment (Operator Not In Charge)





Implemented MV-22 Solution





ATS Implementation Plan

- **Phase I: ATS implemented**

- **Accountable to VMMT-204 CO for managing all MV-22 training assets and associated personnel**

- **Phase II: (Oct '02)**

- **Accountable to CG, 2nd MAW for managing all MCAS New River simulator training assets and associated personnel**

- **Phase III: TBD**

- **Phase II organization duplicated within all of 2nd MAW and other Air Wings**



ATS Responsibilities

- Mission
 - Responsible for the fielded Aircrew Training Systems (ATS)
- Goal
 - Maintain a training capability to achieve MACP vision and MCASMP goals
 - “Aviation Combat Element Training System”***
- Execution
 - Axis of advance
 - **Physical Assets**
 - New simulators
 - Legacy simulators
 - Facilities
 - **Organizational structure**
 - USMC Aviation Simulation Steering Committee
 - **System employment/marketing**
 - FPT Coordinator
 - OAGs

Marine Corps Aviation Simulator Master Plan (MCASMP)



Marine Aviation Simulation
Steering Committee (MASSC)



MASSC Membership

Chairman - Major Horton
APW-71, HQMC

MACP(S) - LtCol. Fancher
USMC Liaison, PMA-205

- Major Smith
MCASMP PM, PMA-205
- Major Murphy/Major Glenn
USMC Liaison, NAWC(TSD)
- Major Jeff Hogan
Director ATS



MASSC Charter

- Responsible to Deputy Commandant, Aviation for executing training procurement IAW MACP
- Guide decision making for USMC Aviation Training procurement
 - Ensure on-time, tactically relevant training
 - Tactical Environment Network (TEN) mandate
 - Shaping Industry to fulfill our requirements
 - Field of view limitations on collimated displays
 - Subsystem convergence (core or common)
 - Image Generators, control loaders, enclosures
- Guide determination of requirements (ATS)



MASSC Policy Compliance Letter

- Policy Statement - “Program Managers may submit waivers on MCASMP compliance to HQMC (APW-71) via MCASMP PM and PMA-205 stating justification for noncompliance”
 - - “All new simulator procurements shall be compatible with MCASMP devices. Includes incorporation of the TEN and USMC common visual database”.
 - - “Legacy simulators undergoing major modifications/upgrades shall be made compatible with MCASMP devices”.
 - - “MASSC shall identify legacy simulators to be upgraded based on MACP guidance and funding availability”.



How Can You Help

- T&R (MC Order/Requirement)
 - Put Simulation into it. (V-22)
 - Supports Networked Training
- If your Simulator is BKN report it
 - CASREP Impacts Safety of Flight
 - Return on investment get the funding
 - Keep reporting it
- Treat the Simulator like your Aircraft
 - Hold Support Personnel responsible for the maintenance of your Simulator



POC for Simulators Within PMA-205

- Mr. Bill Laray, CH-53 - laraywr@navair.navy.mil
 - 301-757-8099 DSN (757)
- Mr. Mike Vivlamore, H-1 - Vivlamore@navair.navy.mil
 - 301-757-8099 DSN (757)
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 - 301-757-8099 DSN (757)
- Mr. Mike Mancini, KC-130 - mancinimg@navair.navy.mil
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- Mr. Tom Drobeck, F/A-18 - drobeckt@navair.navy.mil
 - 301-342-7238 DSN (342)
- Mr. Gary Hampton, CH-46 - hamptong@navair.navy.mil
 - 407-380-4118 DSN (960)
- *Mr. Jim Keller, AV-8B - kellerje@navair.navy.mil
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Questions